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Application No. 10/022364
Amendment dated 8/28/2006
Reply to Office Action of February 22, 2006

AUG 28 2006

Docket No.: 79684-US1

REMARKS

Claims 1-8, and 10-25 are pending in the subject application. Claims 1-8 and 10-25 stand rejected. Favorable reconsideration of the application and allowance of all of the pending claims are respectfully requested in view of the above amendments and the following remarks.

Claims 1-4 and 7 are rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 6,013,567 to Henley et al.

Claims 5, 6, and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Henley et al. in further view of United States Patent No. 6, 323, 108 to Kub et al.

Claims 10-19 and 21-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Henley et al. in further view of United States Patent No. 6, 323, 108, Kub et al., and United States Patent No. 6,312,567 to Lee et al.

Claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Henley et al. in further view of United States Patent Application No. 2002/0042169, Kub et al., and United States Patent No. 6,312,567 to Lee et al., and United States Patent No. 5,882,987 to Srikrishnan.

Claim 1 recites, *inter alia*, a method for making a thin film device, comprising:
implanting hydrogen ions to a selected depth within a single crystal semiconducting material substrate withstanding temperatures of 500°C - 1000°C, having implant-damaged stiffening material on the single crystal substrate to form an implanted hydrogen ion layer so as to divide the single crystal semiconducting material substrate into two distinct portions;

thermally bonding the single crystal semiconducting material substrate with the implant-damaged stiffening material to a *flexible substrate that has a flexibility in excess of that of silicon*, said thermally bonding temperature used for bonding has a maximum temperature of approximately 150°C - 200°C ;

splitting the single crystal semiconducting material substrate along the implanted hydrogen ion layer; and

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removing one of the two distinct portions of the single crystal semiconducting material substrate on the side of the ion layer away from the flexible substrate, wherein a remaining thin film portion is attached to the flexible substrate.

In the Office action mailed 11/21/2002 the Examiner asserts that the Henley et al. patent teaches a method of forming a thin film material on a device which includes applying an adhesive layer between bonding surfaces of silicon wafer layer 2100 and flexible substrate layer 2201. (page 3 of Office action dated 11/21/02) Thus, it appears the Examiner was asserting that the flexible substrate 2201 of Henley et al. is the flexible substrate of the present invention as recited in independent claim 1.

Amended independent claim 1 recites, *inter alia*, bonding the single crystal substrate to a flexible substrate *that has a flexibility in excess of that of silicon*. As mentioned in the specification, the flexible substrate of amended independent claim 1 offers the advantages of low weight, high flexibility, and relative strength. The Henley et al. patent discloses a target silicon wafer (column 13, line 55), which presumably the Examiner asserts is the flexible substrate of independent claim 1. However, a silicon wafer inherently cannot have a flexibility in excess of that of silicon. Therefore, amended independent claim 1 is novel over Henley et al.

Applicants respectfully submit that claims 2-8 depend from amended independent claim 1. Thus for the reasons discussed above, claims 2-8 are additionally novel over Henley et al. within the meaning of 35 U.S.C. 102(b).

Moreover, Henley et al. alone or in combination fails to teach or suggest the features as recited in amended independent claim 1 because Henley et al. does not include the limitation of having a flexible substrate that has a flexibility in excess of that of silicon.

In the 35 U.S.C. 103(a) rejection of claims 5, 6, 8, and 10-25 the Examiner admits the Henley et al. patent fails to teach or suggest the features recited in these claims. Nevertheless, the Examiner contends that one skilled in the art would have found all of these features obvious in light of United States Patent No. 6, 323, 108 to Kub et al.

Applicants respectfully submit that claims 5, 6, 8, and 10-25 are patentable over the prior art of record within the meaning of 35 USC § 103 because United States Patent No. 6, 323, 108 to Kub et al. is inapplicable as prior art within the meaning of 35 USC § 102(e). This inapplicability

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results since, similar to the present application, Kub et al. is commonly owned or assigned to The United States of America as represented by the Department of the Navy, See MPEP 706.02(1)(1).

Further, Kub et al. does not qualify as prior art under 35 USC § 102(a). The only inventors of Kub et al. are Francis J. Kub and Karl D. Hobart; the inventors of the present application are also Francis J. Kub and Karl D. Hobart. Therefore, Kub et al. does not qualify as prior art under 35 USC § 102(a) because the reference has the same inventive entity as the present application.

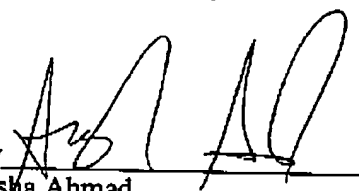
In addition, Kub et al. does not qualify as prior art under 35 USC 102(b) since the patent publication date is November 27, 2001 and the filing date of the present application is December 20, 2001. Thus the publication date of Kub et al. is not greater than a year from the filing date of the present application. Accordingly, Kub et al. does not qualify as prior art under 35 U.S.C. § 102, the reference does not qualify as prior art under 35 U.S.C. § 103. The Office action mailed on 2/22/06 relies on Kub et al. to reject claims 5,6,8, and 10-25 is now clear the claims are patentable over the prior art of record.

In view of the foregoing, if the Examiner feels that the application is not now in condition for allowance, he is respectfully requested to call the undersigned attorney to discuss any unresolved issues and to expedite the disposition of the application.

Filed concurrently herewith is a petition (with payment) for an Extension of Time of one month. Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 50-0281.

Respectfully submitted,

Dated:

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